



Patent # 3/2/04  
Attorney's Docket No. 040071-080

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
Per-Olof BRANDT	)	Group Art Unit: 2666
Application No.: 09/617,678	)	Examiner: Frank Duong
Filed: July 14, 2000	)	Confirmation No.: 6987
For: Frequency Multiplexer	)	

REQUEST FOR RECONSIDERATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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FEB 26 2004

Technology Center 2600

Sir:

In complete response to the Office Action mailed December 2, 2003, reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-17 remain pending.

Initially, Applicant notes with appreciation the Examiner's consideration of the documents cited in the Information Disclosure Statements filed on September 19, 2000 and April 11, 2001.

Claims 1-17 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,308,051 to Atokawa ("Atokawa"). This ground of rejection is respectfully traversed.

Claim 1 is not anticipated by *Atokawa* because *Atokawa* does not disclose all of the elements of claim 1. For example, *Atokawa* does not disclose a plurality of circuits each with the first and second filter characteristics recited in claim 1.

*Atokawa* discloses an antenna duplexer for use in NTACS-CDMA system. In a NTACS-CDMA system there are two transmit frequency bands (887-901 MHz and 915-925 MHz), and two receive frequency bands (832-846 MHz and 860-870 MHz). *Atokawa* discloses the use of a bandwidth blocking filter circuit 27 on the transmission side, and a frequency variable trap 28 and a surface acoustic wave filter circuit 30 on the receive side. (See figure 1 of *Atokawa*).

*Atokawa* discloses that when the bandwidth blocking filter circuit 27 on the transmission side is set for passing the 887-901 MHz frequency band, the bandwidth blocking filter circuit 27 blocks the frequency band 915-925 MHz and presents a high impedance for the 832-846 MHz frequency band. When the bandwidth blocking filter circuit 27 is set for passing the 887-901 MHz frequency band, the surface acoustic filter 30 and frequency variable trap 28 block the 860-870 MHz frequency band and present a high impedance to the 887-901 MHz frequency band.

*Atokawa* discloses that when the bandwidth blocking filter circuit 27 on the transmission side is set for passing the 915-925 MHz frequency band, the bandwidth blocking filter circuit 27 blocks the frequency band 887-901 MHz and presents a high impedance for the 860-870 MHz frequency band. When the bandwidth blocking filter circuit 27 is set for passing the 915-925 MHz frequency band, the surface acoustic filter 30 and frequency variable trap 28 block the 832-846 MHz frequency band and present a high impedance to the 915-925 MHz frequency band.

Accordingly, *Atokawa* discloses that the bandwidth blocking filter circuit on the transmission side blocks either the 887-901 MHz frequency band or the 915-925 MHz frequency band, while the circuitry on the reception side blocks either the 832-846 MHz frequency band or the 860-870 MHz frequency band. Hence, the transmission circuit of *Atokawa* blocks a first or second frequency band (i.e., either 887-901 MHz or 915-925 MHz), while the reception circuit of *Atokawa* blocks a third or fourth frequency band (i.e., either 832-846 MHz or 860-870 MHz). Accordingly, *Atokawa* does not disclose that each circuit has a "first circuit characteristic that passes a first frequency band and substantially blocks a second frequency band" and "a second filter characteristic which substantially blocks the first and second frequency bands" as recited in Applicant's claim 1.

The Office Action asserts that the bandwidth blocking filter circuit 27 on the transmission side of *Atokawa* comprises two of the plurality of circuits recited in Applicant's claim 1. Specifically, the Office Action asserts that capacitors C5, C1, C3, resonator 2 and diode D1 corresponds to a first of the plurality of circuits, while capacitors C6, C2, C4, resonator 3, and diode D2 correspond to a second of the plurality of circuits. However, it appears that all of these elements work together to perform the bandwidth blocking filter function, and that if the bandwidth blocking filter

circuit 27 were broken down into the parts asserted by the Office Action, the individual parts would not block any of the interested frequency bands. In other words, capacitors C5, C1, C3, resonator 2 and diode D1 operating by itself would block or pass one frequency band (and not a frequency band within the 887-925 MHz region), while capacitors C6, C2, C4, resonator 3, and diode D2 operating by itself would block or pass a different frequency band (and not a frequency band within the 887-925 MHz region). Because this interpretation of *Atokawa* is not proper, this interpretation does not overcome the above-identified deficiencies of *Atokawa* with respect to Applicant's claim 1. Nevertheless, if this ground of rejection is maintained, Applicant respectfully requests that the next Office Action provide an explanation to support the assertion that capacitors C5, C1, C3, resonator 2 and diode D1 operate independently of capacitors C6, C2, C4, resonator 3 and diode D2 to block the interested frequency bands disclosed by *Atokawa* so that the Applicant has a full and fair opportunity to respond to this interpretation of *Atokawa*.

Because *Atokawa* does not disclose all of the elements of Applicant's claim 1, *Atokawa* cannot anticipate Applicant's claim 1.

Claims 2-15 variously depend from claim 1, and hence, are not anticipated by *Atokawa* for at least those reasons stated above with regard to Applicant's claim 1.

Method claim 16 recites the first and second filter characteristics discussed above with regard to claim 1, and hence, is not anticipated by *Atokawa* for similar reasons to those discussed above with regard to claim 1. Claim 17 depends from claim 16, and hence, is not anticipated by *Atokawa* for at least those reasons stated above with regard to claim 16.

For at least those reasons stated above, it is respectfully requested that the rejection of claims 1-17 as allegedly being anticipated by *Atokawa* be withdrawn.

All outstanding objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. Notice to this effect is earnestly solicited. If there are any questions regarding this response or the application in general, the Examiner is encouraged to contact the undersigned at 703-838-6578.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: February 24, 2004

By:

  
\_\_\_\_\_  
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Patent  
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Per-Olof BRANDT

Application No.: 09/617,678

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Title: Frequency Multiplexer

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AMENDMENT/REPLY TRANSMITTAL LETTER

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Sir:

Enclosed is a reply for the above-identified patent application.

- ☐ A Petition for Extension of Time is also enclosed.
- ☐ Terminal Disclaimer(s) and the ☐ \$55.00 (2814) ☐ \$110.00 (1814) fee per Disclaimer due under 37 C.F.R. § 1.20(d) are also enclosed.
- ☐ Also enclosed is/are \_\_\_\_\_

- ☐ Small entity status is hereby claimed.
- ☐ Applicant(s) requests continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$385.00 (2801) ☐ \$770.00 (1801) fee due under 37 C.F.R. § 1.17(e).
- ☐ Applicant(s) requests that any previously unentered after final amendments not be entered. Continued examination is requested based on the enclosed documents identified above.
- ☐ Applicant(s) previously submitted \_\_\_\_\_  
\_\_\_\_\_ on \_\_\_\_\_  
for which continued examination is requested.
- ☐ Applicant(s) requests suspension of action by the Office until at least \_\_\_\_\_, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.
- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (1809/2809) is also enclosed.

- ☒ No additional claim fee is required.
- ☐ An additional claim fee is required, and is calculated as shown below.

AMENDED CLAIMS					
	No. of Claims	Highest No. of Claims Previously Paid For	Extra Claims	Rate	Additional Fee
Total Claims		MINUS =	0	x \$18.00 (1202) =	\$ 0.00
Independent Claims		MINUS =	0	x \$86.00 (1201) =	\$ 0.00
If Amendment adds multiple dependent claims, add \$290.00 (1203)					
Total Claim Amendment Fee					\$ 0.00
<input type="checkbox"/> Small Entity Status claimed - subtract 50% of Total Claim Amendment Fee					\$ 0.00
<b>TOTAL ADDITIONAL CLAIM FEE DUE FOR THIS AMENDMENT</b>					<b>\$ 0.00</b>

- ☐ A check in the amount of \_\_\_\_\_ is enclosed for the fee due.
- ☐ Charge \_\_\_\_\_ to Deposit Account No. 02-4800.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

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